

Atypical Mycobacteria

Nontuberculous Mycobacteria,
Mycobacteria other than tuberculosis [MOTT]

Disease Fact Sheet Series

What are atypical mycobacteria?

Atypical mycobacteria are a group of bacteria that are widely distributed in nature. They can be found in water, soil, unpasteurized milk, and animals and may cause disease in humans.

Are these the same organisms that cause tuberculosis?

No. Atypical mycobacteria do **not** cause tuberculosis. These bacteria belong to the same family as *Mycobacterium tuberculosis* (MTB) but only MTB causes tuberculosis. Atypical mycobacteria in this family include other species such as *M. avium*, *M. intracellulae*, *M. kansasii*, *M. xenopi*, and *M. fortuitum*.

Do these organisms cause disease?

Many people become infected with and harbor atypical mycobacteria without any symptoms or evidence of disease. In some individuals, however, infection with these organisms may result in disease involving the lungs, skin, lymph nodes, or other parts of the body. These organisms may also infect open wounds. One species, *M. paratuberculosis* has been suggested as the cause of Crohn's disease. Risk factors for disease from these organisms include a weakened immune system, lung diseases, heavy smoking, and alcohol abuse.

What are the signs and symptoms of atypical mycobacterial infection?

Patients with disease caused by atypical mycobacteria commonly have respiratory symptoms, such as cough and increased sputum production, and an abnormal chest x-ray. Patients may also experience fever, weakness, and weight loss. These symptoms may be similar to tuberculosis so further medical and laboratory tests are needed for an accurate diagnosis. A weakened immune system, underlying illness or tissue damage may make a person more likely to develop disease if infected with atypical mycobacteria.

Can people with atypical mycobacterial disease infect others?

With the exception of organisms causing skin lesions, there is very little evidence of person-to-person spread of these organisms. Individuals with respiratory disease from atypical mycobacteria do not readily infect others and, therefore, do not need to be isolated from others. The majority of atypical mycobacterial infections come from the environment and is not spread from person to person. Exceptions include organisms in skin lesions, *M. kansasii*, and possibly *M. simiae*.

How is disease caused by atypical mycobacteria treated?

Treatment is based on results of laboratory testing that will identify an effective antibiotic for treatment. Preventive treatment of close contacts of persons with disease caused by atypical mycobacterium is not necessary.